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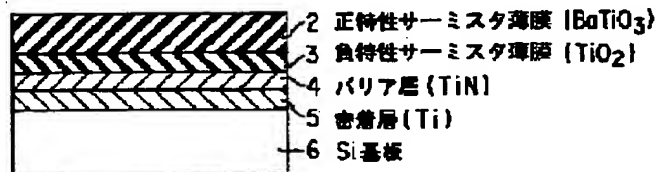
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TITLE : THIN FILM THERMISTOR ELEMENT
AND ITS MANUFACTURING METHOD



ABSTRACT : PURPOSE: To provide a thermistor element having plural resistance-temp. coefficients, small size and high responsibility by forming thermistor materials having different positive and negative resistance-temp. coefficients into a unified thin film by applying the semiconductor film forming technique.

CONSTITUTION: Thermistor thin films having positive and negative resistance- temp. coefficients are coupled in series or parallel and formed into a unified thin film of a multilayer structure to constitute a thermistor element having at least two resistance-temp. coefficients. It is made by forming an adhesion layer (Ti) 5, barrier layer (TiN) 4, first metal thin film (TiO₂) 3 having a negative resistance-temp. coefficient and second semiconductor ceramic thin film (BaTiO₃) 2 having a positive resistance-temp. coefficient on, e.g. an Si wafer in this order to constitute a composite thin film thermistor element.

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